# BROWN BULLETIN Vol. 41 - No. 2 BROOKHAVEN NATIONAL LABORATORY

# **Henry Grahn Becomes Associate Director**



Henry C. Grahn

BNL began the new year with a new Associate Director for Administration — Henry C. Grahn. He comes to that position after 28 years at the Laboratory, most recently as Assistant Director for Financial Management.

Announcing Grahn's January 1 appointment in a memo to all employees last month, Laboratory Director Nicholas Samios said, "I look forward to Hank's continuing endeavors in ensuring BNL's eminence as a first-rate productive laboratory."

In his new capacity, Grahn is responsible for the Managment Information Systems Division, Budget Office, Fiscal Division, Photography & Graphic Arts Division, Business Manager's Office, and, reporting through the latter office, the Supply & Materiel and Staff Services Divisions.

Further, as chief financial officer of the Laboratory, Grahn is responsible for a broad range of financial activities. These include long-range financial planning and the implementation, execution and control of the Lab's fiscal matters and budgets, including all "Work for Others" activities.

Of his new position, Grahn said, "My job includes dealing with the increased number of audits and reviews of the Laboratory by the Department of Energy's [DOE] Inspector General's office and others within DOE." He also coordinates the information flow between DOE and BNL, and within BNL, to ensure a timely and effective response to all findings and recommendations from studies, audits or appraisals of the Lab.

Grahn explained that DOE's Chicago Operations Office, which is responsible for oversight and evaluation of DOE laboratories, performs a

series of appraisals of the Lab each year, particularly looking at administrative and operational support functions. "I believe this requires close attention," he said, "and I will strive to maintain good communications with DOE counterparts and to work towards improving the internal effectiveness of the Laboratory in dealing with such matters."

Grahn believes good communications help resolve potential problems and improve efficency. With that in mind, "I intend to work closely with the groups that report to me," he said, "and to maintain a steady, open dialogue with the scientific departments. Over the coming year, I'll take a fresh look at areas under my jurisdiction, to see how we might improve our operations, and I welcome suggestions."

Grahn knows that the Lab's scien-(Continued on page 3)

## **Ernest Courant to Receive First Wilson Prize**

Senior Physicist Ernest Courant, who received the Department of Energy's Enrico Fermi Award in December, has been selected to receive the 1987 Robert R. Wilson Prize of the American Physical Society (APS).

When he receives the award at the April meeting of the APS, Courant will be its first recipient. The prize was established in 1986 to recognize and encourage outstanding achievements in the physics of particle accelerators.

Accordingly, the citation for Courant's award will read, "For his key role in the invention of the principle of Alternating Gradient Focusing, and his pioneering work in particle beam dynamics. This invention and the subsequent development of particle accelerators has made possible the exploration of the elementary constituents of matter, at the nuclear and subnuclear level, which has led to our new understanding of Elementary Particle Physics. It has also led to application of accelerators to many areas of science and technology, such as Synchrotron Light Sources.

The Wilson Prize, which consists of \$5,000, a \$450 travel grant to attend the APS meeting and a certificate containing the above citation, was established by the APS's Division of Particles and Fields, its Topical Group on Particle Beam Physics and the

friends of Robert R. Wilson. Wilson, a long-time accelerator physicist, was the director of the Fermi National Accelerator Laboratory from 1967 to 1978 and is currently professor emeritus at Cornell University.

Since the discovery of alternating gradient focusing was made at BNL in 1952, its impact has become ever more apparent. Also known as strong focusing, the principle Courant discovered with Stanley Livingston and Hartland Snyder has been critical to the development of advanced accelerators throughout the world.

Particles spin around synchrotrontype accelerators in a circular path at nearly the speed of light and at energies that rival cosmic rays generated in the galaxy. Keeping the particles in place are magnets that focus the particles horizontally and vertically. Because of alternating gradient focusing, in which the magnets alternately focus first in one direction and then another, particles can be focused more strongly. The smaller particle beam created by strong focusing permits the use of much smaller magnets. The result is a high energy machine built at a reasonable cost.

The 33-billion-electron-volt (GeV) Alternating Gradient Synchrotron (AGS) at BNL was one of the first applications of this idea. If not for (Continued on page 2)



At a ceremony held in Washington, D.C. on December 18, Energy Secretary John Herrington (right) presented Ernest Courant with the Department of Energy's highest scientific award: the Enrico Fermi Award. Lois Livingston also accepted the 1986 award for her late husband, Stanley Livingston. In addition to the Presidential citation shown, each recipient was awarded a gold medal and \$100,000. On December 23, the Suffolk County Legislature presented Courant with a scroll, which further recognizes his achievement.

— U.S. Department of Energy Photo

# **Buckley Prize Goes to Robert Birgeneau**

Robert Birgeneau, whose association with BNL dates back to 1968, has been chosen to receive the 1987 Oliver



Robert Birgeneau

E. Buckley Condensed Matter Physics Prize of the American Physical Society (APS).

Established in 1952 to recognize and encourage outstanding theoretical or experimental contributions to condensed matter physics, the Buckley Prize carries an award of \$5,000 and a certificate citing the contributions made by the recipient. When Birgeneau receives his award, at the March 1987 meeting of the APS, the citation will read, "For his use of neutron and x-ray scattering experiments to determine the phases and phase transitions of low dimensional systems." The last person in the field of neutron scattering to win this award was BNL Senior Physicist Gen Shirane, in 1973.

Most of the neutron scattering work cited was done at the High Flux Beam Reactor (HFBR), where Birgeneau has been an experimenter since 1968. Currently the Cecil and Ida Green Professor of Physics at the Massachusetts Institute of Technology (MIT), Birgeneau comes to BNL often during the year to participate in ongoing research at the HFBR and new experiments at the National Synchrotron Light Source. As he is in the midst of a six-year appointment as a Visiting Scientist, Birgeneau also spends his summers at the Lab. Indeed, in the 15 summers he and his wife have spent at BNL, his four children have, effectively, grown up here.

Most of Bigeneau's work at BNL has focused on phase transitions — how substances change from one state to another. In studying the phase transitions that occur on the layers or strands of low dimensional (one- and two-dimensional) compounds, he sought out systems that are good approximations of theoretical models. By experimenting on these systems and comparing them with the theory, he has significantly advanced understanding in the field of solid state, or condensed matter, physics.

His experiments have also involved phase transitions in liquid crystals, in surface monolayers and in disordered magnetic systems.

Birgeneau received his Ph.D. from Yale University in 1966, then taught at Yale for one year. The following year, he went to Oxford University, as a National Research Council of Canada Postdoctoral Fellow.

In 1968, Birgeneau became a guest in the Physics Department at BNL, an association which continues to today. From 1968 to 1975, he researched at Bell Laboratories, and in 1971 and 1979, he was a visiting scientist at Risø National Laboratory, Roskilde, Denmark.

Birgeneau joined MIT in 1975. He was appointed to his present physics chair in 1982 and became Associate Director of MIT's Research Laboratory for Electronics in 1983. In addition, he is a member of the HFBR Program Advisory Committee at BNL.

January 9, 1987 Brookhaven Bulletin

## Goal Met by More Than a Whisker

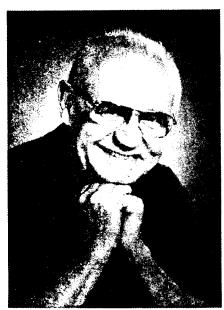


Silhouetted against the first snow of the season, the green, rhyming signs of the BNL United Way Drive announce the great news: The goal has been met! These signs have a double-edged appropriateness, because this was the publicity method used some years ago by Burma Shave. And this year's BNL United Way campaign was spearheaded by six members of the Supply and Materiel Division (SMD) who vowed not to shave until \$75,000 had been collected. "As our beards grew, we thought all the more about shaving!" said Lou Di Carlo, SMD, leader of this year's drive. "That's what gave me the idea of adapting the old Burma Shave signs. They're simple, but effective. We used other attention catchers too, like the TV raffle won by Hugh Brown, AGS. But the solid funding came just from the steady flow of generous donations. The best was getting new donors. For the first time, over 1,000 people gave to the fund. Once you realize how satisfying and easy it is to help such good causes, you go on. That's the real success." The fund stands now at \$76,431, with 1,021 contributors.

# **BNL's Fabulous Forty**

Twenty-one Lab employees will observe their 40th service anniversaries during 1987. BNL's 40th anniversary year. Their reminiscences will find their way into this column throughout the year.

Almost forty years back, on February 24, 1947, 28-year-old Karl Walther first came to the newly-opened Brookhaven National Laboratory. Issued life number 160, he started as a glassblower in the Electronics and Instrumentation Division and has been working with glass ever since.



Karl Walther

In those beginning days, remembers Walther, everything was far less structured. "Part of my job interview was held in a project director's half-furnished living room, with a very large oil painting propped against the wall and threatening to slide down on my feet."

Though the working facilities were just converted wooden barracks, Walther comments on the excellent quality of the equipment, especially compared with any he saw in some other laboratories at that time. "Brookhaven Lab was something of a showpiece, and we were lucky in procuring first-class working materials, which were hard to get as a rule. The nuclear sciences were considered to be the promise of the future — in medicine, as well as in energy and other directions. Then, people were intrigued by the unknown. Now, they seem to fear

Did the Lab's early employees expect to be here for forty years? "There was always a concern that President Truman, as a Democrat, might not continue the necessary strong funding in such a Republican area — but we needn't have worried! I guess the work done at the Lab was more important than party politics.'

Work at the Lab developed, and for some years there were five full-time glassblowers. "We made the equipment for so many experiments," recalls Walther. "I was always most interested by the work for the medical projects, because they involved the hope of improving people's chances to live longer."

As the general demand for glassblowing lessened, Karl Walther transferred to the Chemistry Department, where there was most need for him. "Of course, we were ready for any kind of glass work, not just blowing,' he explains. "Today, there is much more cold working of glass, using lathes and abrasive methods. But in the days when we were mainly sweltering over molten glass, you can imagine how we felt about into the new Chemistry building. Air conditioning! It has never been appreciated more.'

The buildings have changed, and many Lab workers have come and gone. "But one thing is the same." Walther feels. "When you're supporting a top scientist with a first-class mind who throws his whole heart in his project, you are just dragged along into the excitement of the work. You don't work for the salary. You are part of a team of discovery. That's working at the Lab at its best, and for me, there's no place like it."

- Liz Seubert

#### Correction

In "BNL's Fabulous Forty" last week, the 60-inch Cyclotron was incorrectly said to be the first such device to be built in the United States, It was, however, the first commercially-built cyclotron in the United

## **Coming Up**

Pierre Grand, a scientist in the Department of Nuclear Energy, will give the next Brookhaven Lecture, on Wednesday, January 21, at 4:30 p.m., in Berkner Hall. His topic will be, "SDI at Brookhaven: The Neutral Particle Beam Program."

#### Courant

(Cont'd)

alternating gradient focusing, BNL's National Synchrotron Light Source would not exist today, and the U.S. would not be considering building the 20,000 GeV Superconducting Super

In addition to these and the many other high energy accelerators built on this principle, what would not exist without it is the wealth of physics knowledge that physicists have uncovered using these machines. The Omega-minus particle at the AGS (1963), the W and Z intermediate vector bosons at CERN's Super Proton Synchrotron (1983) and scores of other findings since 1952 might still be mysteries without the accelerators made possible by alternating gradient focusing.

Ernest Courant received his Ph.D. from the University of Rochester in 1943. Since he came to BNL in 1947. his primary research interest has been accelerator physics. He is currently involved with several projects, including general studies of accelerator physics, SSC design and design of the Relativistic Heavy Ion Collider proposed for BNL.

# **Getting Tax Forms**

Since the IRS will no longer provide bulk quantities of federal tax forms, these forms will no longer be available in the lobby of the Public Relations Office, Bldg. 134. They can be obtained at participating banks, post offices or libraries. If you are unable to obtain needed forms, call the IRS Forms number: 1-800-424-FORMS. Requests for forms can also be sent to:

Forms Distribution Center

P.O. Box 25866 Richmond, VA 23260

New York State tax forms will still be provided and are available in the Public Relations lobby.

### Learning About the Lab

**Enter I-R 100** 

Applications to enter the I-R

100 competition are available

from the Office of Research &

Technology Applications (ORTA),

Ext. 2103, Bldg. 475. The I-R 100

awards are presented annually to

the top 100 technological achieve-

ments of the year by the maga-

zine Research and Development.

The deadline for this year's appli-

As the Lab is encouraging par-

ticipation in this competition, it

will pay the entry fees and any

associated expenses for I-R 100

award winners. In the past three

years, BNL has collected five such

awards, and contractors for the

Department of Energy have taken

20% of the top honors. For further

information, contact Bill Mar-

cations is March 2.

cuse, ORTA Head.



Three staff members of the U.S. House of Representative's Science and Technology Committee (HSTC) and an aide to newly-elected Congressman George Hockbrueckner (1st CD) came to BNL in December to familiarize themselves with the Laboratory's programs. Pausing during a briefing are: (seated, from left) Josh Groves, who is on Hockbrueckner's staff; Nelson Milder, Staff Aide, HSTC; Jack Dugan, Staff Director of the HSTC's Energy Development and Applications Subcommittee; BNL Director Nicholas Samios; (standing, from left) Jerome Hudis, Vice President for Programmatic Affairs, Associated Universities, Inc.; Richard Setlow, BNL Associate Director for Life Sciences; BNL Deputy Director Martin Blume; Parke Rohrer, BNL Associate Director for Management & Physical Plant; and David Beightol, Staff Aide,

#### Service Anniversaries in Physics



A reception was held December 10 in the Physics Department for staff members who observed recent BNL anniversaries: (seated, from left) Frank Langdon (30), Sam Lindenbaum (35), William Lenz Jr. (10), John Plonski (35), Donna Earley (10), Lawrence Toler (20), George Dienes (35), Joseph Weneser (35), Ronald Rau (30); (standing, from left) Robert Mignerey (30), Henry Arnesen (25), John Benjamin (10), Stanley Ulc (20), Pavel Rehak (10), Sidney Kahana (20), Kenneth Foley (25), David Brady (25). Not present for photograph: John Koehler (25), Edward Frantz (25), Leigh Hawkins (20) Suh Urk Chung (20), David Millener (10), William Morse (10).

#### Grahn

(Cont'd)

tific programs are its center, but he is also well aware of budgetary constraints on them. When he first started handling the Lab's budget, in 1969, BNL received less than \$50 million a year in operating funds; this year, the Lab will spend in excess of \$200 million. During this time, however, there have been steep increases in such costs as energy, security, site maintenance and medical care for employees.

Said Grahn, "Given our limited funding resources, we must try on a daily basis to optimize the Lab's scientific programs and yet comply with all the basic requirements of accountability, safety, security and efficiency of operation. This concern is foremost in my thoughts at all times."

Grahn, who is married to Marie Grahn of Physics, has been associated with BNL since 1958, when he joined the Fiscal Division. Four years later, he left the Lab to join the Audit Staff of Associated Universities, Inc., but reclaimed his BNL life number in 1965, as an administrator in the Physics Department. In 1969, he moved to the Director's Office, serving as Budget Officer until 1976, when he became Assistant Director for Financial Planning and, in 1985, for Financial Management

Now, as Associate Director for Administration, Grahn said, "I feel strongly that the current Directorate team assembled under the leadership of Nick Samios is an effective and dynamic group, and I am pleased that Nick has confidence in me as part of that group, to help him carry out his responsibility to manage Brookhaven."

# BROOKHAJEN BULLETIN

for the employees of BROOKHAVEN NATIONAL LABORATORY

ANITA COHEN, Editor MARSHA BELFORD, Senior Reporter LIZ SEUBERT, Reporter

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## **WIS Meeting**

The after-work talk on the 1986 Tax Reform Act, to be given by AUI Chief Internal Auditor Frank Federmann and BNL's Fiscal Officer Barney McAlary, which was originally scheduled for Wednesday, January 14, is being rescheduled. Check next week's Bulletin for the new date.

## **NYC Train Trips**

The Hospitality Committee has scheduled two Long Island Railroad (LIRR) train trips to New York City — Wednesday, January 21, and Saturday, January 31. The trips depart from the Patchogue LIRR station on Wednesday at 7:55 a.m. and on Saturday at 8:41 a.m., but passengers should arrive at the station 15 minutes before departure.

The fare for the Wednesday trip is \$5.25 per ticket; the Saturday trip is \$6.75. Children under five years of age ride free. Tickets are sold on a firstcome, first-served basis. To make your reservations, send a check to BNL, P.O. Box 322, Upton, NY 11973. Make your check out to BNL or Cash, and put your telephone number and date of your trip on the back of the check. Please send a separate check for each trip. Checks must be received by the Friday before the Wednesday trip and the Thursday before the Saturday trip. Reservations are made upon receipt of your check; however, if you would like confirmation of your reservation, send a self-addressed, stamped envelope

# **Weight Watchers**

As of last November, 3,633 pounds had been lost by on-site Weight Watchers (WW). To continue the trend and help those who gained over the December holidays, WW sessions will resume on site the week of January 26. Like last year, three eight-week sessions will meet 5:15-6:15 p.m., on Tuesdays, Wednesdays and Thursdays. The meeting place, however, has changed: WW will now meet in the conference room of Bldg. 535, S&EP.

As the Laboratory is continuing to share the cost of the program with new members, their fee will be \$29; continuing members will pay \$58. To sign up, come to any on-going WW session during the week of January 19 in Bldg. 911, AGS, Snyder Seminar Room, or call Health Promotion Specialist Elaine Friedman, Ext. 2699, Tuesdays or Thursdays.

# Take the Plane to the Helicopter

It's become quite normal to take classes in such uncommon subjects as exotic cookery, Chinese or quilting. But when Donna Cange, a secretary in the Department of Applied Science, describes her hobby, people are still surprised. Flying! How does it feel?

"Way up there, you can see so much: people swimming in their pools, trails in the woods, lakes you never knew about. And there you are, soaring the skies, with all that power at your fingertips."

Cange, whose fingertips fly already over a word processor, has always wanted to be a pilot. "As a child, whenever I caught sight of planes and helicopters, I longed to be with them up in the clouds," she said, "But it seemed so expensive and difficult. I kept thinking it was just a dream."

The dream started to become reality last February with an announcement in the Bulletin, asking if anyone were interested in a private pilot ground school course. Doug Sweely and Larry Leipuner, both members of the BERA Aviation Club, had decided to offer the course free on site. Cange and about 24 others registered for the course

"I didn't know how I'd get on," admitted Cange. "It was a lot of work. But since it was free, I could try it without having to pay for something that might turn out to be much too difficult. We were all very grateful to our instructors. They gave up so much time and took so much trouble to help."

The class began in February and met for about three hours a week until June. At each session, the students went through a chapter of a private pilot manual, with quizzes and questions. Cange bought a plotter and an Avstar, or flight computer. She learned how to calculate "things like wind speed and direction, fuel requirements, plotting the true course — all things you do before you get in the plane. You learn specialized skills, for example, solving navigational problems, correction for wind, weight and balance, safety procedures and radio communications."

After five months, Leipuner and Sweely considered the students well prepared. With 14 fellow students, Cange took the official Federal Aviation Association exam. And passed.

Although it would have been permitted to take flying lessons with an instructor before passing the exam, Cange preferred to know as much as

possible before venturing into the air. "That way, I didn't feel so dependent on the instructor," she said. "It was just as well, too. My instructor was new, and I was only his third student. Since I knew the ground course so well, I even reminded him of some of the check points you should examine before getting into the plane. He said we could help each other, but somehow that didn't reassure me!"

However, her first flight, on August 13, was a great success. They flew over the Lab, and Cange learned left and right turns, acceleration and deceleration. They flew at about 1,500 feet, the lowest permissible altitude over land being 1,000 feet. Over the ocean, planes are allowed to fly as low as 500 feet. "You don't wear a parachute," said Cange. "If you are flying that low, you would hit the ground before it opened. You just make sure you stay up."

Cange is going for the VFR, or Visual Flight Rule pilot license, in which the pilot watches out of the window for other air traffic while the plane more-or-less flies itself. She has chosen to fly the Cessna 172, a single-engine four-seater, which she thought would be more practical for passengers than the Cessna 152 or 150 two-seater planes most people learn in. After ten hours actual flying time, a pilot can fly solo. "Maybe in late spring," said Cange. "The pilot's test comes after that, perhaps by the end of this year."

But Cange's true goal is not piloting a plane. "It's flying a helicopter I'm really aiming for," she explains. "They look like so much fun. But because they're scarce, a license costs roughly \$6,000 in lessons and flying time, as opposed to about \$3,000 in a plane. Once you have your pilot's license for a plane, though, you know most of the navigation and ground information already, and you can add a helicopter license for only about \$1,000 more."

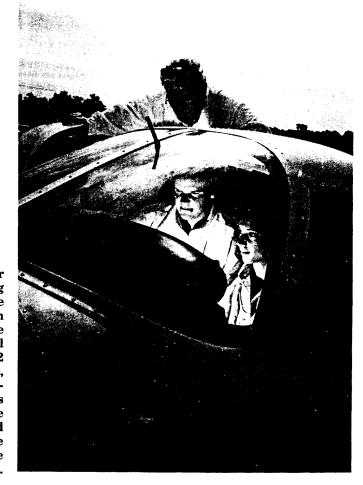
What does Cange hope to do with her license? "Maybe aerial photography, or a job as a Lab pilot," she says, "but there is a long time ahead before I have to think about that."

So far, Cange's determination has taken her through the ground pilot qualifications and into the air. Friends will not be surprised if one day, as she says, she'll be rocking on the porch of her big old farm, her dog at her feet, a sports car in the driveway, "and my helicopter parked in the back yard."

— Liz Seubert



Larry Leipuner (top) and Doug Sweely, of the BERA Aviation Club, study the instrument panel of a Cessna 172 with Donna Cange, one of the successful students from the private pilot ground school course they offered free on site last spring.



#### Swim Club

The Swim Club will practice on Thursday, January 15, at 5:15 p.m. at the BNL pool. All those who can swim two laps without stopping using the crawl stroke are invited to attend. For more information, call Marsha Belford, Ext. 5053, or Peter Heotis, Ext.

#### **Pool Hours**

Evening hours at the swimming pool will be from 5 to 7 p.m. on the following dates only:

Wednesday, January 14 Wednesday, January 21 Wednesday, January 28

On all other dates, the evening hours will remain 5 to 9:30 p.m.

## **Bowling**

#### Red/Green League

High games were bowled by H. Arnesen 233, J. Connelly 226, R. Jones 225, K. Riker 205, R. Jansson 203, K. Asselta 202, C. Bohnenblusch 200.

#### **Arrivals & Departures**

#### Arrivals

Robert K. Adair	Director's Office
Melvyn G. Cowgill.	DNE
Caroline S. Harris.	DAS
Gregory P. Jones	Sfgds. & Sec.
Robert Munoz	Sfgds. & Sec.
Thomas G. Throwe	Physics

#### Departures

This list includes all em minated from the Laborate	
Moon-Hyun Chun	DNE
Gerald Dennehy	Contracts & Proc.
Matthew DePasqual	e AGS
George J. Dienes	Physics
Margaret Dienes	Tech. Info.
John M. Dioguardo .	AGS
Geneva M. Griffin	Fiscal
Joseph D. Haeg	Contracts & Proc.
Philander B. Miller.	Plant Eng.
Goran Senjanovic	Physics
Paul R. Simonetti	MIS
Assaf Sukenik	DAS
Ellis S. Tremski	Plant Eng.
Ralph W. Tuthill, Jr.	Medical
John R. VanRyzin	$\cdots\cdots  DAS$
Derek Winstanley	DAS

## Cafeteria Menu

#### Week of January 12

Monday, January 12	
Garden vegetable soup	(cup) .70
	(bowl) .90
Seafood quiche w/1 veg. (lite-wei	ght) 2.75
Baked Italian chicken w/1 veg.	2.65
Hot deli: Roast beef	(bread) 2.45
	(roll) 2.55
	(hero) 2.65
Tuesday, January 13	
Beef barley soup	(cup) .70
•	(bowl) .90
Turkey w/dressing and giblet gra	avy 2.65
Salisbury steak w/1 veg.	2.55
Hot vegetable plate (lite-weight)	2.20
Hot deli: Baked ham	(bread) 2.35
	(roll) 2.45
	(hero) 2.55
Wednesday, January 14	
Split pea soup	(cup) .70
- F F F F	(bowl) .90
Eggplant Parmesan w/garlic bre	
Broiled fish w/1 veg. (lite-weight	
Hot deli: BBQ pork on onion roll	2.55
Thursday, January 15	2.00
Beef noodle soup	(cup) .70
Deer Hoodie Soup	(bow) .70
Chicken Kiev w/1 veg.	2.75
Spanish macaroni w/1 veg.	2.65
Fruit & yogurt plate (lite-weight)	2.20
Hot deli: Corned beef	(bread) 2.45
Tax dell. Confed beer	(roll) 2.55
	(hero) 2.65
Friday Innovation	(11610) 2.00
Friday, January 16	
New England clam chowder	(cup) .70
Chiakan nut wis w/1	(bowl) .90
Chicken pot pie w/1 veg.	2.45
Baked ravioli w/garlic bread	2.65

Tortellini salad plate (lite-weight)

Hot deli: Fishwitch sandwich

2.25

2.45

#### **Social Club**

Now is the time to make reservations for the February 20-22 ski trip to Magic Mountain, Vermont. The cost per person is \$179 for four per room, \$189 for three per room or \$209 for two per room. This includes round trip to motel, transportation to mountain, lift tickets, two breakfasts, wine & cheese party, dinner and more. For more information call Doris Terry, Ext. 2228.

## In Stormy Weather

The following radio stations have agreed to carry announcements regarding emergency closings and delayed openings at BNL:

Station	Area	AM	FM
WALK	Patchogue	1370	97.5
WBAB	Babylon	1440	102.3
WBLI	Patchogue		106.1
WCTO/	Smithtown	74	94.3
WGSM			
WHLI	Hempstead	1100	98.3
WLIM	Patchogue	1580	
WLIX	Islip	540	
WLNG	Sag Harbor	1600	92.0
WRCN	Riverhead	1570	103.9
WRIV	Riverhead	1390	
WSBH	Southampton		95.3

#### Classified Advertisements

#### **Placement Notices**

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department and/or appropriate bargainwithin the department and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handican or vetera status.

age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

ing to the anticipated area of recruitment.
Except when operational needs require otherwise, positions will remain open for one week fol-

lowing publication date. For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

#### THE VACANCIES LISTED BELOW HAVE BEEN **EXEMPTED BY THE DIRECTOR'S OFFICE FROM** THE CURRENT FREEZE ON OPEN REQUISI-

**LABORATORY RECRUITMENT - Opportunities** for Laboratory employees only.

2519. SECRETARIAL POSITIONS (3 days/wk) -Requires AAS degree or equivalent experience and excellent secretarial skills to perform technical typing and general office procedures. Knowledge of Lab policies and various word processing equipment very desirable. Accelerator Develop ment Department.

**OPEN RECRUITMENT - Opportunities for Labor**atory employees and outside applicants.

2520. NUCLEAR REACTOR OPERATOR TRAINEE - Requires AAS in a technical field or equivalent experience. Prior reactor background and experience in maintaining and operating electrical and mechanical equipment very desirable. Must be able to work rotating shifts, obtain "Q" clearance and maintain reactor qualifications. Will operate and maintain HFBR and auxiliary equip-

2521. COMPUTER OPERATIONS POSITIONS (until 9/30/87) - Requires AAS degree in data processing or successful completion of computer operations training program or equivalent experience. Will assist in the operation of a large electronic digital computer. Shift work required. Applied Mathematics Department.

2522. PHYSICS ASSOCIATE (2 positions) -Requires BS or equivalent in physics or electrical engineering, experience in computer programming and good communication skills. Will be involved in the operation and troubleshooting of the AGS accelerator complex for the experimental physics program. Background in computer controls, high power pulsed power supplies and digital electronics desirable. Rotating shift work Main Control Room, Alternating Gradient Synchrotron Department.

#### **Autos & Auto Supplies**

78 DATSUN 280Z - 5 spd., blue, good cond., \$2,500. Dave, Ext. 4088 or 298-9571

81 PONTIAC T-1000 - 53k mi., radial, tires, just inspected, \$1,850. Bob, Ext. 2964.

78 CUTLASS SALON - a/c, p/s, p/b, 5 spd., orig. owner, V8. Ext. 3930 or 286-2854.

ALTERNATOR - for Volvo 142 sedan, 1973, air filter & short bend pipe for the same, 286-2151.

76 PONTIAC VENTURA - 8 cyl., p/s, p/b, a/c, r/h, high mi., runs well, asking \$450. Ext. 4532.

74 FORD MUSTANG II - 4 cyl., new exhaust & master cyl., \$300; 71 Ford Galaxy 500, 351 engine & parts, \$150. 589-2338.

76 OLDSMOBILE - 4 door sedan, a/c, p/b, 350, great running, \$800. Kevin, 563-1189.

77 DATSUN B210 - rusty but reliable, good "station" car, \$100 or best offer. Ext. 7535 or 331-4637.

84 DODGE ES600 - 4 door, 40k mi., orig. owner, fully loaded, A-1 cond., good family car, \$6,000. 924-3236.

78 TOYOTA CELICA - liftback, 5 spd., orig. owner. new battery, starter, shocks, muffler, asking \$2,100. Bob Larson, Ext. 4656 or 928-1806.

73 PLYMOUTH SCAMP - runs, good for parts, new exhaust, \$250. Annamarie, Ext. 2352 or 472-9016. 80 DATSUN 510 - htchbk, a/t, needs work, \$1,000.

78 CHEVY NOVA - new a/t, new exhaust, p/s, p/b, a/c, excel. cond. Dan, Ext. 2319 or 821-0260.

85 FORD TEMPO GLX - 12k mi., all power, golden bronze, beautiful cond., \$7,500. John Schuller, Ext. 3082 or 727-9197, eves.

79 CHEVY WAGON - runs well, \$400, 821-9094,

78 PONTIAC SUNBIRD - 4 cyl., a/t, p/s, p/b, a/c, clean, good cond., 878-0294 after 6 p.m.

TIRES - B.F. Goodrich A/T radials, (4) 33x12.5x15, (2) 31x10.5x15, make offer. Mike, Ext. 2841.

#### **Boats & Marine Supplies**

25' BROADWATER - head, sleeps 4, store running water, 1/2 glass, many extras, \$4,000. Chuck, 821-

#### Miscellaneous

Ext. 4615 or 928-8522.

TICKETS - (2) Groucho: A Life in Revue, Broadway show, Sunday, Jan. 11, \$30 for pair. Larry, Ext. 2021 or 281-7240.

FIREWOOD - split, seasoned oak, 4'x16"x18" pieces, delivered, \$105. 732-2849.

RGB COLOR MONITOR - Amdek II+ for IBM, 16 colors, \$250 firm. Marty, Ext. 2521 or 589-7587,

GERBIL HABITAT - cheap. Ext. 2543.

DRYWALL NAILS - 1%" long, 29 pounds, \$10.

PRESSURE COOKER - stainless steel. 744-3289. BALLET TICKETS - (2) NYC ballet, Sun. Jan. 11, 7

SOFA - 2 piece, L-shaped sectional, Castro, approx. 10'x15', excel. cond., \$350. 475-4787 after

CAMERA - Yashika, FX-3 w/Sigma mini zoom/ macro lens w/case, new \$200. Nestor, Ext. 3073.

BABY ITEMS - all good; F78-14 tires. 744-9677.

BABY ITEMS - playpen, high chair, sassy seat, excel. cond., Ady, Ext. 4531 or 331-3785.

CHESS - electronic, Fidelity Challenger, 9", new \$75; shearling half coat, new, size 40, brown, perfectly tailored, \$250. Ext. 3589.

STORM WINDOWS - (2) alum. 33%" x54%", \$10 ea. Bill, Ext. 2047

ATARI 800XL - modem, NEC color monitor, \$175; girls' 10 spd., \$20. Sue, 472-2251.

TV - 19", b&w, solid state, good cond., \$35. Jag, Ext. 5080 or 751-1884.

SPEAKER SYSTEM - SKLMV 8" woofer, 3" tweeter, excel. cond., \$35/pr. Karen, Ext. 4262.

TV - b&w, 19", Zenith, used 2 years, stored 7 years,

\$50. Mike, Ext. 7941.

gold floor lamp, \$30. Craig, Ext. 2760 or 395-1084.

SOFA - bed, Q-size, w/tables, fair cond., \$100;

MOVING SALE - Bassett dining set, excel., asking \$300; Waterfall hutch, asking \$300.; lamp. Helen,

PRINTER - Silentype for Apple II home computer, interface card and manual included, asking \$75. 689-8685.

BICYCLES - 1 BMX bike; 1 small child's bike

w/training wheels; 2 bed frames, chairs, misc. items. Gary, Ext. 2350 or 567-9617. KITCHEN CABINET - new, assorted sizes, white

glossy finish, size 42"Ix33"w, 2 doors, \$75/ea. Ernie, Ext. 7632 or 281-7873.

SKATEBOARD - good cond., \$20; space heater, elec., new \$20; drapery rods, new, \$5. S. Spark, Ext. 4111. RANGE FINDER CAMERA - Canter 35mm w/book

and case, \$25; Kodak carousel projector lens, \$10. Susan, Ext. 4267. ASBESTOS SIDING - light gray, half price; septic

pump w/piping, \$75. 286-2151. DEHUMIDIFIER - \$35; bassinet, \$20; electric attic vent fan, new, \$30; misc. Mahogany, \$35. 722-

WINDOW - Andersen awning-type, 63"x48"; Heathkit AJ15 FM Tuner. I. Meyer, 929-4326.

#### Lost & Found

LOST - video camera lens cover, following Santa around site, 12-24, bring to F.D. or call Ext. 2350.

#### Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

#### For Rent

HILTON HEAD, S.C. - 2 bdrm. condo, sleeps 6, many extras, golf, tennis and plenty of sunshine, \$300/wk. 585-9149.

MORICHES - charming 1 yr. old country cottage, 1 lg. bdrm., full bath, kit./dining/living area, w/w carpet, full bsmt., w/d hookup, cable, cac, more. Ext. 5186 or 878-9284.

YAPHANK - small 2 bdrm. house, quiet, bright, & clean, fenced yard, single or couple pref., \$500/mo. + util., lease. Ext. 7657 or 924-2933 or 924-6493.

PORT JEFF STA. - 2 story, 4 bdrms., 3 baths, I/r, d/r, eik, 2 car garage, bsmt., fp, immed. occu-pancy, \$1,290+. 821-2002, 751-8707, eves.

FARMINGVILLE - 1 bdrm. apt., kit./living room, full bath, single person, no pets, avail. 2/1, \$450/mo inc. all, +1 mo. security. Pat, 736-3384 after 6 p.m. MASTIC BEACH - room for rent, use of kitchen,

226 Monroe Dr., \$75 week. 281-8164. HOLBROOK - 25 min. to Lab, 1 bdrm. cottage on

pvt. grounds, lg. l/r, bath, kit & dining area, util. room on 1 floor. furn. or unfurn., avail. Jan. \$650 + util. Fred, Ext. 7947 or 588-2268

MANOR PARK, MASTIC - 3 bdrm. Ranch, nice location, no pets, references, 2 mo. security, \$750/mo. 878-4259, eves.

#### For Sale

SHOREHAM NORTH - 4 bdrm, Colonial, 21/2 baths. den/fp, bsmt, fenced, patio, formal d/r. 744-1750. ROCKLEDGE, FL. - 2 bdrm., 2 baths, d/r, l/r, kit.,

f/r, combination porch, 2 car, many extras, reasonable, lot 75x115, block & stucco, excel. location. 305-631-2840.

#### Wanted

TRAINS - Lionel, American Flyer, accessories, any cond., brings good price. Carole, Ext. 3362 or 924-4097, eves.

CHRISTMAS LIGHTS - old series, string-type w/C-6 bulbs, any cond., Jack, Ext. 7869. REFRIGERATOR - Coppertone, 9'x12' rug, sofa

bed, good cond., reasonable. Walt, Ext. 2907 or 698-0576.

RIMS - (2) 14", 4-lug, for Ford Fairmont, Ext. 4475 or 929-3251, home

OLD GOLF BAGS - set of women's gold clubs for a beginner. Garry, Ext. 5289.

PEOPLE FOR REUNION - U.S.S. Abner, read DD-526, Nov. 1987, New Orleans. Contact A. Gill, 18 Pia Blvd. Smithtown 11787 or 724-4514.

3-MONTH-OLD INFANTS - for Ph.D. study of infant memory involving pleasant play task at infants' home. Maureen Wall, 929-6495.

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Deadline is 4:30 p.m	. Friday for publication	Friday of the following week.
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- 1. The Brookhaven Bulletin's classified section may be used only by active and retired Laboratory employees 2. All items for sale or rent must be the advertiser's property.

  3. Ads for material acquired for resale in association with a
- full or part-time business cannot be accepted.
- 4. Ads for the sale or trade of firearms will not be accepted
- 5. Ads not carried because of space restrictions will be held for publication in the next issue.
- 6. Ads are run only once and must be resubmitted if they are to be repeated. One ad per person per week. 7. Property for sale and rent cannot be accepted on this form. Special Real Estate Ad Forms are available at the office of the Brookhaven Bulletin, Building 134.

☐ For Sale: Autos & Auto Supplies ☐ For Sale: Boats & Marine Supplies	☐ For Sale: Miscellaneous ☐ Car Pools	☐ Lost & Found ☐ Wanted	Free
Please print your ad below in 15 words or	less using one word per block. In	nclude name and phone	number to call.

Note: The foll	lowing must be comple	eted for your ad to appear	1.			
NAME (Please	e Print)					
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	Se	nd to: Brookhaven Bulleti	n Building 134 (Ext. 23	45)		